

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Previously presented): An external storage subsystem comprising:
2 a plurality of disk drives for storing data;
3 a drive interface control unit operatively couple to the disk drives;
4 a channel interface control unit through which a connection with a supervisory
5 unit can be established for reading and writing data;
6 a cache memory connected to the drive interface control unit and to the channel
7 interface control unit, the cache memory for temporarily storing data between the disk interface
8 control unit and the channel interface control unit; and
9 a shared memory connected to the drive interface control unit and to the channel
10 interface control unit, the shared memory for storing information relating to data that is to be
11 staged to the cache memory,
12 the information being used by the channel interface control unit to stage data that
13 is stored in a plurality of tracks in one or more of the disk drives to the cache memory by way of
14 the drive interface control unit,
15 the information further being used by the channel interface control unit to destage
16 data from the cache memory to be stored to the disk drives by way of the drive interface control
17 unit,
18 wherein staging of the data to the cache memory and destaging of the data from
19 the cache memory are performed according to staging and destaging instructions from the
20 supervisory unit, the instructions formulated by the supervisory unit according to criteria
21 provided by a user.

1 2. (Currently amended) An external storage subsystem having at least one
2 disk drive and having a cache memory to store data that is read from the disk drive and to store
3 data to be written to the disk drive, collectively referred to as user data temporarily, and in
4 which, wherein the user data is stored ~~in~~ to the cache memory or removed from the cache
5 memory based on user defined information ~~or~~ and upon operating information ~~of~~ provided to the
6 external storage subsystem.

1 3. (Previously presented): The external storage subsystem as claimed in
2 claim 1, in which the staging in or destaging from the cache memory of the user data is executed
3 in a processing unit of a data-set domain.

1 4. (Original): The external storage subsystem as claimed in claim 2, in
2 which the storage in or removal from the cache memory of the user data is executed in a
3 processing unit of data-set domain.

1 5. (Previously presented): An information processing system having an
2 external storage subsystem and a host unit which is external to the external storage subsystem
3 and connected to the external storage subsystem, in which the external storage subsystem
4 comprises a plurality of disk drives, a drive interface control unit, a channel interface control
5 unit, a shared memory, and a cache memory, in which the host unit executes writing and reading
6 data to the external storage subsystem, and in which

7 the host unit has a host utility program to manage data in the cache memory, and
8 user defined information or operating information of the external storage subsystem for
9 execution of the host utility program,

10 wherein the host utility program can issue a resident command to instruct the
11 channel interface control unit to set residing data in the cache memory, and can issue a reset
12 command to instruct the channel interface control unit to reset residing data in the cache
13 memory,

14 wherein the channel interface unit in the external storage subsystem receives the
15 resident command and the reset command based on the user defined information or the operating
16 information,

17 wherein the drive interface control unit is operable to store data on the disk drives,
18 wherein the cache memory is in data communication with the drive interface
19 control unit and the channel interface control unit,

20 wherein the shared memory is in data communication with the drive interface
21 control unit and the channel interface control unit, and stores first information relating to data
22 stored in the cache memory,

23 wherein the channel interface control unit sets and resets residing data in the
24 cache based on the first information.

1 6. (Original): The information processing system as claimed in claim 4, in
2 which the storage of a set of user data in the cache memory or removal of the user data from the
3 cache memory is executed in a unit of data-set domain.

1 7. (Original): The information processing system as claimed in claim 4, in
2 which the user defined information includes a data-set name which is entered from a terminal
3 connected to the host unit.

1 8. (Original): The information processing system as claimed in claim 5, in
2 which the user defined information includes a data-set name which is entered from a terminal
3 connected to the host unit.

1 9. (Previously presented): A system comprising a host unit and a disk array
2 system separate from the host unit and in data communication therewith, the disk array system
3 comprising:

4 a plurality of disk drives for storing data;

5 a drive interface control unit operably coupled to the disk drives for transfer of
6 data therewith;

7 a channel interface control unit to receive data transfer commands from a host
8 unit;
9 a cache memory in data communication with channel interface control unit and
10 with the drive interface control unit; and
11 a shared memory in data communication with channel interface control unit and
12 with the drive interface control unit, the shared memory having stored therein first information
13 relating to data staged in the cache,
14 wherein the host unit can issue a resident command and a reset command;
15 wherein in response to receiving a resident command from the host unit, the
16 channel interface control unit accesses the first information to store data received from disk
17 drives into the cache memory,
18 wherein in response to receiving a reset command from the host unit, the channel
19 interface control unit accesses the first information to reset data that is stored in the cache
20 memory.